PMA1 - FGB PRESSURIZATION

PRESSURIZATION INITIALIZATION

1. **MCC-H** verify Node 1 CABIN PRESS = 750-760 mmHg(14.5-14.7 psia)

2. **MCC-H** notify **MCC-M** "Proceed with PMA 1 Pressurization"

3. EPK1, EPK2 command (two) - Enable

4. Verify EPK1, EPK2 (two) - Enabled

5. **cmd** EPK2 - Open

6. Verify pressure of FGB PMA1 PRESS 1,2 (two) ~0 (vacuum condition)

7. Record time and pressures
   DMT____:____:____(dd:hh:mm)

   FGB PMA1 PRESS 1 _____,
   FGB PMA1 PRESS 2_____

8. **MCC-M** notify **MCC-H** on initiation of PMA1 pressurization.

9. **MCC-H** notify shuttle on initiation of PMA1 pressurization.

10. **cmd** EPK1 - Open

11. **MCC-M** notify **MCC-H** pressurization in progress.

PRESSURIZATION COMPLETION

12. **MCC-H** notify shuttle pressurization in progress.

13. Wait two orbits, then
    cmd EPK1 - Close

14. **MCC-M** notify **MCC-H** on the completion of pressurization.

15. **MCC-H** notify shuttle on the completion of pressurization.

16. Wait TBD minutes for PMA1 stabilization of temperature gradients.

PMA 1/FGB INTERFACE LEAK CHECK

17. Record time and pressures and calculate initial average:

    DMT____:____:____(dd:hh:mm)
    FGB PMA1 PRESS 1 _____(mmHg)
    FGB PMA1 PRESS 2 _____(mmHg)

    Initial average (PRESS 1 + PRESS 2)/2 =_____(mmHg)

18. **MCC-M** notify **MCC-H** on the initiation of the PMA1 leak check. Report time, pressures and initial pressure as recorded in step 19 and subsequent data acquisition opportunities to **MCC-H**.

LEAK CHECK COMPLETION

19. Wait until daily orbit TBD, at data acquisition opportunity, then record time and pressures and calculate final average

    DMT____:____:____(dd:hh:mm)
    FGB PMA1 PRESS 1 _____(mmHg)
    FGB PMA1 PRESS 2 _____(mmHg)

    Final average (PRESS 1 + PRESS 2)/2 =_____(mmHg)

20 Leak check pressure decay:
    Pressure decrease = _____(mmHg)
    Initial Average - Final Average = _____(mmHg)

21. Make a plot and perform an analysis of automatically recorded telemetry data and define the pressure trend.

22. **cmd** EPK2 - Close
    cmd EPK1, EPK2 command (two) - Disabled
    Verify EPK1, EPK2 command (two) - Disabled

23. Report to **MCC-H** the results of the pressure trend analysis as recorded in step 21.

24. If pressure decrease is < 7 (TBV) mm Hg - PMA 1/FGB interface seal is tight

    MCC-M notify **MCC-H** valid seal integrity demonstrated.

    MCC-H notify shuttle on the good leak check.

25. If pressure decrease is > 7 (TBV) mm Hg - suspect leak conditions

    MCC-M notify **MCC-H** invalid seal integrity

    MCC-H notify shuttle invalid leak check.

    √**MCC-H** for further actions.

    MCC-M follow instructions from **MCC-H**.

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* CONFIGURE FGB EPK ASSEMBLY FOR DEMATING *
* 26. **MCC-M** notify **MCC-H** "FGB configured for demating." *
* *
* CONFIGURE TC/WC FOR SECOND REPRESS *
* 27. **MCC-M** contact **MCC-H** "FGB TC configured for second repress." *
* *
* Report TC total pressure to **MCC-H**. *
* *
* 28. **MCC-H** notify **MCC-M** to repeat steps 1 --- 23. *
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